

TECHNICAL SUMMARY

Description of Application

- Applicant: Waste Control Specialists LLC (WCS)
Radioactive Material License (RML) No. R04100
Customer Number: CN600616890
Regulated Entity Number: RN101702439
- Action: Administrative Amendment of RML No. R04100 for low-level radioactive waste (LLRW) disposal and radioactive waste storage and processing.
- Location: WCS is located at 9998 State Highway 176 West, Andrews, Andrews County, Texas 79714, near the Texas-New Mexico state line.
- General: WCS currently holds a radioactive material license (RML No. R04100) for a LLRW land disposal facility and for a radioactive waste storage and processing facility.
- Request: WCS submitted an original administrative amendment application to the TCEQ on November 24, 2014 to clarify existing conditions with minor changes and to update the license. Additionally, the NRC has modified the Order to WCS regarding possession and storage of special nuclear material (Docket Number 70-7005; NRC-2014-0283; EA-14-104) on December 3, 2014, which required an administrative amendment to change the corresponding license condition on RML R04100.
- Authority: A TCEQ radioactive material license for the receipt and disposal of LLRW and for the storage and processing of radioactive waste is required. An amended license has been prepared in accordance with the applicable requirements of Title 30, Texas Administrative Code (TAC) Chapters 281, 305 and 336.

Administrative Information

At the time of this review, WCS did not have any delinquent fees.
The regulated entity, WCS, has a compliance history classification of satisfactory, with a rating of 0.34.
The WCS site has a compliance history classification of satisfactory, with a rating of 0.34.

Technical Information

This license amendment has been reviewed in accordance with applicable rules and statutes, including 30 TAC Chapter 336 (Radioactive Substance Rule) and Chapter 401 of the Texas Health and Safety Code. The review of the request included an assessment of the radiological and non-radiological effects of the license changes on the public health and safety.

- License conditions (LCs) 9.A, 11.V, 101.B, 175.A, 178.D, and Attachment C were modified to change the regulatory reference from 30 TAC §336.2 with a parenthetical at the end to just 30 TAC §336.2 since the specific parenthetical subsection reference changes frequently due to rulemaking.
- The definition of canister in LC 11.E was modified by authorizing canisters to be defined either in the land disposal facility application or as approved by the Executive Director (ED) to allow new types of canisters to be used by WCS.
- LCs 24.A and 24.B were modified by removing references to license conditions that have been removed from the license.
- LC 48.H was modified to make the written notification to TCEQ before the planned receipt of waste containing radioactive material of quantities of concern (RAMQC) at the land disposal facility to be a one-time notification. Additionally, a requirement was added that the Licensee shall give the resident inspectors written notice no less than two days before the planned receipt of RAMQC for shipments after the one-time notice. These changes clarify the intent of this already existing license condition.
- LCs 48.H and 207.E were modified to change the source of the regulatory requirements for security controls of RAMQC from the Nuclear Regulatory Commission (NRC) orders to Title 10 Code of Federal Regulations (CFR) Part 37. The orders from the NRC have been superseded by new federal rulemaking in 10 CFR Part 37 which will be adopted by Texas in 2015 or 2016.
- LC 60.A was modified to change riprap gravel to rock riprap to update the license to reflect changes in the design of the construction of new diversion ditches.
- LC 90 was modified to add that waste shipped to the Compact Waste Facility (CWF) or the Federal Waste Facility (FWF) can be off-loaded, dewatered, and/or void filled at the LSA pad prior to disposal to clarify already existing authorized activity.
- LCs 92, 119.H, and 122.B were deleted (replaced with "reserved") and LC 118 was modified to remove pre-operational requirements which have since been accomplished.
- LC 93 was modified to clarify that the requirement for the resident inspector to inspect the waste before it can be disposed applies only to the CWF.
- LC 96 was modified to remove the requirement that the monthly site receipt and disposal activities report describe the waste stream, type and form of the waste that has been disposed.

- LCs 106.B, 106.C, 106.D, 106.E, 108.F, 156.E, 156.I, and 156.J were modified by replacing 1) controlled low strength material (CLSM) or grout with concrete, 2) grouting with backfilling, and 3) the strength testing method ASTM D4832 or other appropriate ASTM test method with the testing methods ASTM C31 and C39. These changes clarify the concrete terminology related to bulk waste and update the license to match the recently approved bulk waste operating procedures.
- LC 110 was modified by changing "radiation staff" to "radiation workers" who are required to complete a radiation safety course. This modification clarifies the license condition's intent that personnel without any knowledge of radiation safety complete the training course since all radiation staff are required to have specialized training and/or education that supersedes the basic radiation safety course.
- LC 113, which requires the radiation safety officer (RSO) to conduct and document weekly inspections, was removed for redundancy reasons (replaced with "reserved") since all shipments are surveyed and inspected by WCS and TCEQ upon receipt and all radiological work, transfers, and disposals are covered under WCS's radiation work permit program and radiological safety technician coverage.
- LC 118 was modified by replacing "land disposal facility and storage and processing facility" with "Restricted Area" to match the definition of a restricted area in LC 11.Y.
- LC 119.B, which requires the Licensee to conduct confirmatory whole body counts annually on a representative sample group of site workers that are not monitored for intakes as part of the normal monitoring program, was removed since 30 TAC §336.316 only requires monitoring workers for radiation exposure that are likely to receive a dose exceeding 10% of the annual limit.
- LC 119.F was modified by changing the bioassay requirement for any individual who performs work within any area requiring respiratory protection to being a "for cause" bioassay for any individual whose job specific personal air sample exceeds 12 Derived Air Concentration Hours taking into account the respiratory protection factor. This modification updates the license regarding bioassays and respiratory protection.
- LC 122.A was modified to clarify the language without change in intent and meet the definition of restricted area as stated in LC 11.Y.
- LC 129 was modified so that contaminated step-off pads can be replaced as well as decontaminated (which was the only option earlier) since WCS uses several types of step-off pads.
- LC 132 was modified to change the hours of radiation worker classroom training from 40 hours to 24 hours since the 40 hour class contained material that is outdated and needed to be removed.
- LC 134 was modified by removing the requirement that radiation safety meetings must be held monthly with all employees and that unannounced RSO employee

reviews be conducted monthly since monthly safety meetings with all employees are already required under procedure HS-O.O.1 (Health and Safety Plan) which contains a section for radiation safety topics and unannounced reviews with employees. This modification reflects that having this requirement in the license condition as well as in procedures is overly prescriptive.

- LC 137 was modified by changing the requirement that the annual audit report be submitted for review by the executive director "within 30 days after completion" to "30 working days after the Licensee receives the final audit report from the auditor" since WCS uses external auditors for the annual audit and needs time to provide documentation to auditor to resolve any issues and review the audit report prior to submittal to the ED.
- LC 142.C, which contains requirements for the waste manifests for waste to be disposed in the FWF, was modified so that instead of using the NRC waste classifications that shall be limited to Class A, B, and C, these waste manifests can use the waste classification requirements found in 30 TAC §336.362. This modification reflects that federal low level radioactive waste is classified under different rules than commercial radioactive low level waste.
- LC 188.D.1.d was modified by expanding the areas where the solidification and void space verification technique can be used, which was restricted to the LSA Pad, to also include the unexcavated portion of the landfill footprint of the CWF and FWF.
- LC 188.J was modified by adding "unless authorized by approved procedure" to the prohibition on opening waste containers or packaging or repackaging the containerized waste at the Railcar Pedestal Unloading Building (RPUB).
- LC 196.C was modified by changing "waste subject to license condition 187.C" to "waste that cannot be processed into a form that has a current disposal option" since LC 187.C has been removed from the license and the new text conveys the intent of the reference to LC 187.C
- LC 200 was modified so that the notification requirement is only for waste shipped off-site instead of any waste that is shipped to exclude waste transfers within the WCS site.
- LC 203.J was modified to change the length of time that waste streams containing free standing liquids may be stored before and/or after solidification from 90 days to 365 days since some shipments require a longer storage period due to the importation process taking longer than anticipated.
- LC 206.A was modified to reflect the changes by the NRC on the Order to WCS regarding possession and storage of special nuclear material.
- The Waste Acceptance Criteria (WAC) in Attachment C was modified in sections 4.1, 4.1.4, and 4.1.5 to allow WCS to use the current NRC's "Final Branch Technical Position on Concentration Averaging and Encapsulation" (BTP) since the NRC is currently updating the BTP and this modification would allow WCS to use the most up-to-date version.

- Section 7.9.5 of the WAC in Attachment C was modified to change the intrusive visual inspection frequency for bulk debris waste shipment verification from 10% to 100% to correct an inconsistency between the radioactive material license and the RCRA permit.
- Section 9.0 of the WAC in Attachment C was modified to change the requirement that the generator document that dewatering was performed within 180 days or less prior to shipment to the new requirement that the generator certify that the package contains less than 1% free liquids at the time of shipment. This modification updates the certification requirements that the waste meets the less than 1% free liquids requirement.
- Section 10.6 of the WAC in Attachment C was modified to exclude packages in the TN-RAM Type B Cask that are to be disposed in the CWF from the requirement that voids within the package be reduced to maximum extent practicable and have no more than 15% void space or head space. WCS's remote device and void filling technology is not able to puncture the thick steel TN-RAM liners and since waste inside these casks will have extremely high dose rates, WCS is restricted from other means of reducing void space due to radiation safety concerns. Waste stability is assured through the use of high density modular concrete canisters (MCCs) for waste inside the TN-RAM liners.